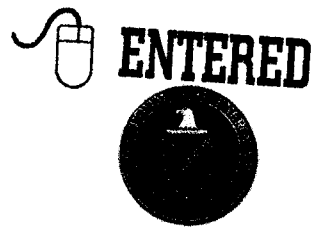




**National Nuclear Security Administration**  
 Sandia Site Office  
 P.O. Box 5400  
 Albuquerque, New Mexico 87185-5400



MAR 30 2009

CERTIFIED MAIL-RETURN RECEIPT REQUESTED



Mr. James Bearzi, Chief  
 Hazardous Waste Bureau  
 New Mexico Environment Department  
 2905 Rodeo Park Road East, Bldg. 1  
 Santa Fe, NM 87505

Dear Mr. Bearzi:

**SUBJECT:** Investigation Report and Proposal for Corrective Action Complete for Long Term Environmental Stewardship (LTES) Site 1—Cable Debris Site at Sandia National Laboratories/New Mexico (SNL/NM)

On behalf of the Department of Energy/National Nuclear Security Administration (DOE/NNSA) and Sandia Corporation, DOE/NNSA is submitting an Investigation Report and Proposal for Corrective Action Complete for LTES Site 1—Cable Debris Site at SNL/NM. A notification of the discovery of this suspected Solid Waste Management Unit (SWMU) was transmitted to you on March 21, 2008; the associated SWMU Assessment Report and Voluntary Corrective Action Plan were delivered on May 20, 2008. Requirements for this Investigation Report are contained in Sections VI.C and VI.H of the Compliance Order on Consent for SNL/NM.

Field work at the site was completed on January 30, 2009. The Compliance Order on Consent for SNL/NM specifies in Section VI.H that this submittal be provided to the New Mexico Environment Department a minimum of 90 days after completion of the voluntary corrective action or measure.

Should you have any questions regarding this plan, please contact me at (505) 845-6036, or John Gould of my staff at (505) 845-6089.

Sincerely,

Kimberly A. Davis  
 Acting Manager

Enclosure



Mr. James Bearzi

-2-

MAR 30 2009

cc w/enclosure:

W. Moats, NMED-HWB (Via Certified Mail)  
B. Salem, NMED-HWB  
A. Ashley-Marx, NMED Solid Waste Bureau  
L. King, EPA, Region 6 (Via Certified Mail)  
T. Skibitski, NMED-OB  
B. Birch, NMED-OB  
J. Gould, SSO

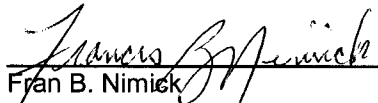
cc w/o enclosure:

T. Longo, HQ/GTN, NA-56  
D. Miller, SNL/NM, MS-0718  
F. Nimick, SNL/NM, MS-0701  
A. Blumberg, SNL/NM, MS-0141  
T. Cooper, SNL/NM, MS-1042  
S. Hwang, SNL/NM, MS-0862  
S. Salinas, SNL/NM, MS-1042  
A. Reiser, SNL/NM, MS-1042  
Customer Funded Records Center, Org.9612, MS-0651

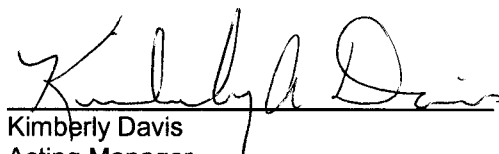
**Investigation Report and Proposal for Corrective Action Complete  
for LTES Site 1—Cable Debris Site**

**CERTIFICATION STATEMENT**

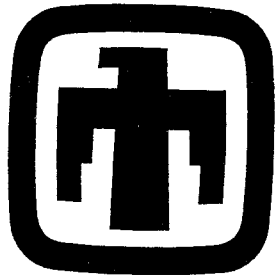
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

  
\_\_\_\_\_  
Francis B. Nimick  
Deputy Director to the  
Nuclear Energy & Global Security Technologies  
Division 6700  
Sandia National Laboratories/New Mexico  
Albuquerque, New Mexico 87185  
Operator

3/4/09  
Date signed

  
\_\_\_\_\_  
Kimberly Davis  
Acting Manager  
U.S. Department of Energy  
National Nuclear Security Administration  
Sandia Site Office (SSO)  
Owner and Co-Operator

3/30/09  
Date signed



Sandia National Laboratories/New Mexico  
Long Term Environmental Stewardship  
Program

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**INVESTIGATION REPORT AND  
PROPOSAL FOR  
CORRECTIVE ACTION COMPLETE  
FOR LTES SITE 1—CABLE DEBRIS SITE**

**March 2009**

Sand Number 2009-1119 P  
Unclassified Unlimited Release



United States Department of Energy  
Sandia Site Office

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Sandia is a multiprogram laboratory operated by Sandia Corporation, a wholly-owned subsidiary of Lockheed Martin Corporation, for the United States Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000.

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- C LTES Site 1 Risk Assessment



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## ACRONYMS AND ABBREVIATIONS

AOP	Administrative Operating Procedure
ARCOG	Analysis Request and Chain-of-Custody
bgs	below ground surface
CAC	Corrective Action Complete
COC	constituent of concern
COOC	Compliance Order on Consent
DOE	Department of Energy
EB	equipment blank
EOD	Explosive Ordnance Disposal
EPA	U.S. Environmental Protection Agency
EM	Environmental Management
HE	high explosive
HI	hazard index
HQ	hazard quotients
KAFB	Kirtland Air Force Base
LTES	long term environmental stewardship
MDA	minimum detectable activity
MDL	method detection limit
mg/kg	milligram per kilogram
mrem	millirem
NFA	no further action
NMED	New Mexico Environment Department
RCRA	Resource Conservation and Recovery Act
RCT	Radiation Control Technician
RME	reasonable maximum exposure
RPSD	Radiation Protection Sample Diagnostics
SMO	Sample Management Office
SVOC	semivolatile organic compound
SWMU	Solid Waste Management Unit
TA	Technical Area
TAL	target analyte list
TCLP	toxicity characteristic leaching procedure
TEDE	total effective dose equivalent
TOP	Technical Operating Procedure
UXO	unexploded ordnance
UXOSO	Unexploded Ordnance Safety Officer
VCA	voluntary corrective action
yr	year

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## **1.0 PROJECT BACKGROUND AND REGULATORY HISTORY**

This Investigation Report describes the Voluntary Corrective Action (VCA) that was completed at the Long Term Environmental Stewardship (LTES) Site 1, Cable Debris Site, located in Technical Area (TA) III of Sandia National Laboratories New Mexico (SNL/NM). The VCA included the removal of surface debris from the site, including the surge basin and surrounding area, confirmatory soil sampling, and other activities completed as part of site closure.

This VCA was conducted under Section VI.H.3 and 4 of the Compliance Order on Consent (COOC) between the Department of Energy (DOE), Sandia Corporation, and the New Mexico Environment Department (NMED) (NMED, 2004). The VCA was designed to accomplish segregation and removal of the surface debris. After removal of the surface debris, soil sampling was performed to confirm the site does not pose unacceptable risk to human health and the environment. The cleanup is consistent with overall corrective action objectives and requirements, and is consistent with the VCA process established in the COOC. Visual surveys, along with final confirmatory sampling were used to verify the objectives were met. As required by Section VI.H of the COOC, the VCA Plan (SNL/NM, 2008) was submitted to the NMED on May 2008 and the field work started on August 2008. The NMED approved the VCA Plan on October 25, 2008 (Bearzi, 2008). All field activities were completed by January 30, 2009, including demobilization and validation of the confirmatory soil sampling analytical results. This Investigation Report presents the results of the VCA and was submitted to the NMED within 90 days of completion of the VCA field work as required by the COOC.

## **2.0 LTES SITE 1: CABLE DEBRIS SITE**

### **2.1 Summary**

SNL/NM personnel conducted a VCA at LTES Site 1 to remove solid waste and confirm there are no known or specific environmental concerns at this site. The assessment was conducted to determine whether environmental contamination was released to the environment via the surface debris at the site. This report provides documentation that the site has been adequately characterized, that no significant releases of contaminants to the environment occurred, and that it does not pose a threat to human health or the environment under either the industrial or residential land-use scenarios. The surface debris removal was completed on January 30, 2009.

Review and analysis of all relevant data for LTES Site 1 indicate that concentrations of constituents of concern (COCs) at this site are below applicable risk assessment action levels as well as confirm that no release to the environment from the debris is evident. However, if NMED were to consider a release was evident and deem as a SWMU, then a determination of Corrective Action Complete (CAC) without controls (NMED, 2004) is recommended for LTES Site 1. This determination is based upon confirmatory soil sampling results that demonstrate COCs released from the site into the environment occur at levels that are protective of human health and the environment.

### **2.2 Site Description and Operational History**

#### **2.2.1 Site Description**

The LTES Site 1 is located within the boundaries of Kirtland Air Force Base (KAFB) (Figure 2.2.1-1) in TA III of SNL/NM on KAFB land permitted to the DOE. The LTES Site 1 consisted of surface debris piles located primarily within a surge basin, with some minor debris located outside the surge basin in the general vicinity. A surge basin is hole or depression that is part of a drainage system that provides additional storage and retention of water during heavy rainfall or flood events. The surge basin at the LTES Site 1 is a circular depression approximately 1.3 acres in size (Figure 2.2.1-2).

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